



Great Lakes Adopt-a-Beach™ Volunteers Improving Beach Health Year-Round

Lyman Welch, Water Quality Program Manager

At Each Scheduled Beach Visit Adopters:

- 1. Investigate beach health.** Answer questions that help identify potential pollution sources. Using the Routine Visit Forms, which align with US EPA Sanitary Survey Forms, adopters collect information on beach health using scientific-based observations and testing.
- 2. Check water quality.** Investigate bacteria levels in the water using a simple test.



- 3. Improve beach conditions.** Remove, record and recycle or dispose of litter properly. Using Litter Monitoring Forms, adopters collect detailed information on litter removed from the beaches.



- 4. Enter data online.** Enter data into the Alliance's online data entry system.

State	Litter Monitoring Forms	Routine Visit Forms
ILLINOIS	154	160
INDIANA	45	97
MICHIGAN	301	154
MINNESOTA	4	4
OHIO	66	75
WISCONSIN	105	108
2010 Totals	675	598

Our Mission

The Alliance for the Great Lakes works to conserve and restore the world's largest freshwater resource using policy, education and local efforts, ensuring a healthy Great Lakes and clean water for generations of people and wildlife.

Adopt-a-Beach™ by the Numbers

6 states with Adopt-a-Beach™ programs
292 beaches visited
\$231,202 dollar value of volunteer hours
31,295 pounds of trash removed
10,700+ volunteers
336 Adopt-a-Beach™ teams

E. Coli and Coliform Testing Procedure

- Two water samples are taken using two separate Whirl-Pak bags to draw water for each Petrifilm. Water samples are taken 20 ft away from swimmers and animals, where water is at least one meter deep. Sample is collected six inches below the surface using a U-shaped motion away from the body.
- At the beach, a sterile pipette is used to draw 1 ml of water from the Whirl-Pak sample. The 1 ml sample is released onto the center of the pink circle of the Petrifilm.
- Petrifilm is covered, labeled, and stored in a sealable bag in a dark area and incubated (35°C) in a horizontal position with the clear side up for 24+ hours.
- Bacteria colonies appear on the Petrifilm as blue and red dots. Blue dots indicate *E. coli* and red dots indicate coliform. Each dot represents one bacterial colony. Since only 1 ml of sample was used and colony counts are usually given per 100 ml, the number of dots is multiplied by 100 to get the number of colonies per 100 ml.

Note that water quality tests such as this method are a screening method. High *E. coli* counts suggest further sampling should be done.

Posters designed by Kate Thinglum



Beach Data Collected Includes:

- ◆Speed and direction of longshore current
- ◆Wave height
- ◆Water pH, temperature, color, turbidity, and odor
- ◆Bacteria tests for presence and amount of *E. coli* and coliform in the water
- ◆Number of people at the beach and the activities in which they are partaking
- ◆Features up to 500 ft from beach boundary that could be potential pollution sources
- ◆Litter items floating in water and amount of debris/litter on the beach
- ◆Presence of oily sheen on water or beach
- ◆Amount and type of algae in water and beach
- ◆Presence and count of wildlife and domestic animals on beach
- ◆Number and type of dead birds, fish, and other animals along shoreline
- ◆Number of garbage and recycling containers within 500 ft of beach boundary

Examples of Actions Taken By Adopters

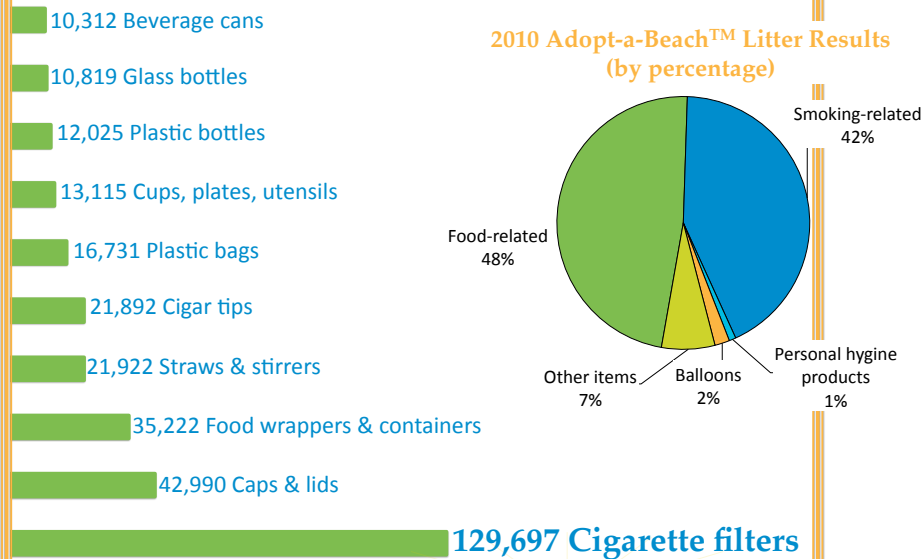
- ◆In Indiana, the team leader at Porter Beach contacted police officials to make them aware of illegal dumping occurring behind a ravine area.
- ◆In Ohio, Baldwin-Wallace College launched a year-round education campaign that included fundraising to pay for animal-proof lids on trash containers. This team also participated in events to raise awareness about beach health-related issues using information collected through the Adopt-a-Beach™ program.



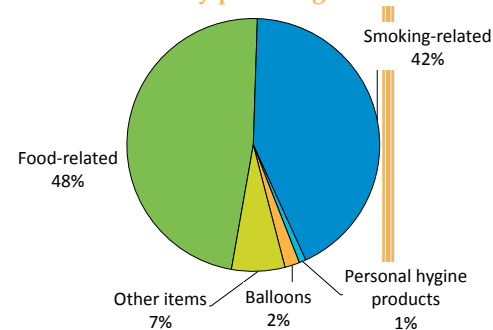
If you have further questions about the program visit our Adopt-a-Beach™ website at: www.greatlakes.org/adoptabeach or email adoptabeach@greatlakes.org

For water quality questions contact: Lyman Welch: LWelch@greatlakes.org
312-939-0838 ext.230

Top 10 Items Removed from Beaches in 2010



2010 Adopt-a-Beach™ Litter Results (by percentage)



How We Are Sharing Data

- ◆**Indiana:** The Alliance partnered with Indiana Dunes State Park and one its volunteers to use Adopt-a-Beach™ data collection forms to help gauge whether a stream restoration project was improving the health of its Lake Michigan beach.
- ◆**Wisconsin:** Adopt-a-Beach™ data from southern Wisconsin's Lake Michigan beaches will be incorporated into beach health reports that the Racine County Health Department is developing for municipalities. The department is examining all beaches in southern Wisconsin's coastal region using the U.S. EPA's Sanitary Survey Tool. Data gathered from our program, which uses an adaptation of the same survey, will be used to supplement gaps in the health department's sampling regimen.
- ◆**Ohio:** In February, The Alliance hosted its third annual meeting with Cleveland-area beach officials and other agency representatives to discuss needed beach improvements and ideas. What began in 2009 as a forum to present results from the summer Adopt-a-Beach™ data collection to Youth Opportunities Unlimited, which provides a summer youth employment program to the city, has grown to include officials from several different agencies, including city agencies and regional sewer district officials. The young Adopt-a-Beach™ volunteers are trained in water sampling at the Northeast Ohio Regional Sewer District's lab in addition to beach health monitoring.
- ◆**Illinois:** Beach pollution data gathered by Adopt-a-Beach™ volunteers is incorporated into a report bound for the U.S. EPA that will help Illinois target and address sources of bacterial pollution along that state's stretch of the Lake Michigan Shoreline.
- ◆**Michigan:** In Ottawa County, the Lend-a-Hand Adopt-a-Beach™ team, comprised of at-risk youth and their team leader, visited two beaches twice weekly through the summer of 2010. Trained earlier by the U.S. Geological Survey Division and the Ottawa County Health Department on the methods those agencies use to collect beach health information, the team's data was incorporated into a special beach health project conducted by USGS.